III. REMARKS

1. Claims 1, 2, 4-20, 22-29, 31-35, and 37-41 remain in the application. Claims 3, 21, 30, and 36 have been cancelled. Claims 42-57 have been newly added. Claims 1, 2, 4-20, 22-29, 31-35, and 37-41 have been amended.

2. An amended Figure 1 is attached showing the designation --PRIOR ART--.

3. Applicants appreciate the indication that claims 37-40 are allowed. Claims 37-40 have been amended to remove reference numbers and the phrase "characterized in that." The amendments to claims 37-40 are not limiting, are not made for reasons related to patentability, and do not raise issues of estoppel.

Applicants also appreciate the indication that claims 6, 10-13, 15-18, and 24-36 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicants believe that these claims are patentable as they stand for the reasons stated below.

Applicants have combined the features of claims 1, 4, and 6 into new claim 44. Applicants have combined the features of claims 19, 20, and 24 into new claim 45. Therefore, Applicants respectfully submit that new claims 44 and 45 are allowable.

4. Applicants submit that claims 1, 19, and 41 as amended are not anticipated by Etoh (US RE 37,668).

20

Etoh fails to disclose or suggest that the filtering operation performed on the block boundary is dependent at least in part on an encoding method used to encode an image block on a first side of the block boundary and an encoding method used to encode an image block on a second side of the block boundary, as recited by newly amended claim 1.

Etoh also fails to disclose or suggest that the filter is arranged to perform a filtering operation on the block boundary in dependence at least in part on an encoding method used to encode an image block on a first side of the block boundary and an encoding method used to encode an image block on a second side of the block boundary, as recited by claim 19.

Etoh further fails to disclose or suggest software program comprising machine executable code for performing a method according to claim 1, as recited by claim 41.

Etoh discloses an image encoding / decoding device which comprises smoothing means 19. The smoothing means performs filtering on edges of an image and comprises vertical, horizontal and diagonal edge-detecting filters. The edge filters use a certain weight pattern which weights the pixels of a block under examination by certain values. The output values of all the edge-detecting filters are used to determine a complexity value of a contour C. The smoothing filter outputs a linear edge unaltered (C is 0) and a complex curve as a smoothed curve (C equals Cmax). This is not the same as the inventive feature of the present invention, namely that the filtering performed on a block boundary depends at least in part on an encoding method

21

used to encode an image block on a first side of the block boundary and an encoding method used to encode an image block on a second side of the block boundary.

At least for these reasons, Applicants respectfully submit that claims 1, 19, and 41 are not anticipated by Etoh.

5. Applicants also submit that claims 1 - 5, 7 - 9, 14, and 19 - 23 are not anticipated by Kim et al. "A Deblocking Filter With Two Separate Modes in Block-Based Video Coding", IEEE Transactions on Circuits and Systems for Video Technology, Vol. 9, no. 1, pp. 156 - 160, February 1999 ("Kim").

Kim, like Etoh, fails to disclose or suggest that the filtering performed on a block boundary is dependent at least in part on an encoding method used to encode an image block on a first side of the block boundary and an encoding method used to encode an image block on a second side of the block boundary, as recited by claim 1.

Similarly, Kim also fails to disclose or suggest that the filter is arranged to perform a filtering operation on the block boundary in dependence at least in part on an encoding method used to encode an image block on a first side of the block boundary and an encoding method used to encode an image block on a second side of the block boundary, as recited by claim 19.

Kim is directed to a deblocking filter with two separate filtering modes. In Kim the filtering mode is selected on the basis of pixel behaviour around a block boundary. A first filtering mode is selected when there is a flat

22

region near the block boundary and a second filtering mode is selected when there are no flat regions in the environment of the block boundary. Again this is quite different from the inventive feature of the present invention where filtering performed on a block boundary depends at least in part on an encoding method used to encode an image block on a first side of the block boundary. and an encoding method used to encode an image block on a second side of the block boundary.

At least for these reasons, Applicants respectfully submit that independent claims 1 and 19, and all claims dependent on them are not anticipated by Kim.

6. Applicants respectfully submit that claim 41 is patentable over Kim.

Claim 41 depends from claim 1.

Kim does not disclose or suggest a software program comprising machine executable code for performing a method according to claim 1, as recited by claim 41. As mentioned above, Kim has no disclosure related to filtering performed on a block boundary that is dependent at least in part on an encoding method used to encode an image block on a first side of the block boundary and an encoding method used to encode an image block on a second side of the block boundary, as recited by claim 1.

At least for these reasons, Applicants respectfully submit that Kim fails to render claim 41 unpatentable.

7. New claims 42 and 43 depend from claim 1, and are patentable for the reasons supporting claim 1 above.

23

8. New claims 44 and 45 are allowable as set forth above.

9. New claim 46 is directed to a method for reducing visual artefacts due to a block boundary between image blocks in a digital video signal frame. The method includes performing a filtering operation on the block boundary that is dependent at least in part on an encoding method used to encode an image block on a first side of the block boundary. None of the prior art references, alone or in combination, disclose or suggest these features.

10. New claim 47 is directed to a filter for reducing visual artefacts due to a block boundary between image blocks in a digital video signal frame. The filter is arranged to perform a filtering operation on the block boundary in dependence at least in part on an encoding method used to encode an image block on a first side of the block boundary. None of the prior art references, alone or in combination, disclose or suggest these features.

11. New claims 48-50 depend from claim 47 and are patentable because of their dependency.

12. New claims 51-53 depend from claim 46 and are patentable because of their dependency.

13. New claims 54-57 depend from claim 19 and are patentable because of their dependency.
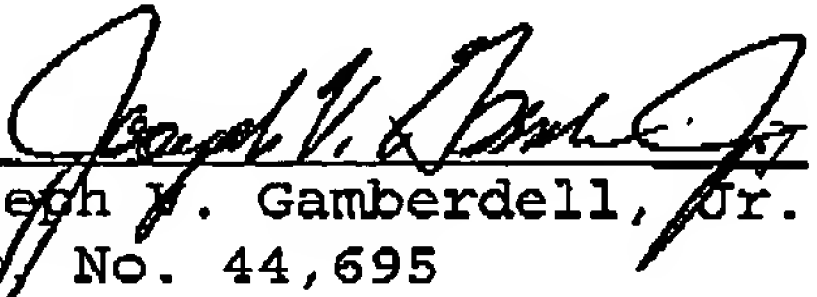
For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is

respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge Deposit Account No. 16-1350 the amount of $1424.00 for a 3 month extension of time and for the additional claim fees.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

_____   _13 September 2004_
Joseph V. Gamberdell, Jr.   Date
Reg. No. 44,695
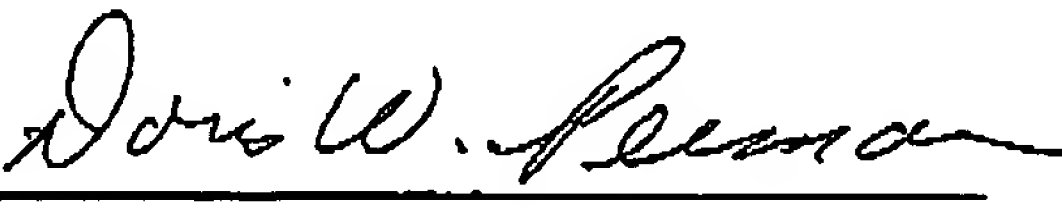
Perman & Green, LLP
425 Post Road
Fairfield, CT 06824
(203) 259-1800
Customer No.: 2512

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted by facsimile to 703-872-9306 on the date indicated below, addressed to Mail Stop RCE, Commissioner of Patents, P.O. Box 1450, Alexandria VA 22313-1450

Date: 9/13/04   Signature: Doris W. Perman

Person Making Deposit

25